

**REMARKS**

Claims 1-12 are pending in this application. By this Amendment, claims 1, 2, 4, 8 and 9 are amended and claim 12 is added. Non-elected claim 11 is withdrawn from consideration by the Examiner. Support for the amendments to the claims and the newly added claim may be found, for example, in the claims as originally filed. No new matter is added.

In view of the foregoing amendments and following remarks, reconsideration and allowance are respectfully requested.

**I. Rejections Under 35 U.S.C. §§101 and 112, Second Paragraph**

The Office Action rejects claim 1 under 35 U.S.C. §101 as being non-statutory because claim 1 is not presented in the format of a proper process claim. By this Amendment, claim 1 is amended to be presented in the format of a proper process claim. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

The Office Action rejects claim 1 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to set forth any steps involved in the process. By this Amendment, claim 1 is amended to set forth steps for the claimed method. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

The Office Action rejects claims 1-10 under 35 U.S.C. §112, second paragraph, as being incomplete for omitting essential steps. By this Amendment, claim 1 is amended to recite at least the essential steps. Claims 2-10 variously depend from claim 1 and, therefore, contain all the features of claim 1. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

The Office Action rejects claims 1-10 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particular point out and distinctly claim the subject matter which Applicants regard as the invention. By this Amendment, claims 1, 2, 4, 8 and 9 are amended to overcome this rejection. Claims 3, 5-7 and 10 variously depend from claim 1 and

are also believed to be definite in view of the amendments to claim 1. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

The Office Action rejects claims 1-10 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to set forth the unit of measurement for the critical rotational speed ( $N_c$ ). By this Amendment, claim 1 is amended to recite that " $N_c$  is expressed in rpm." Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

## **II. Rejection Under 35 U.S.C. §102**

The Office Action rejects claims 1 and 7 under 35 U.S.C. §102(b) over alleged Applicant's Admitted Prior Art ("AAPA") contained in the specification at pages 1-2. Applicants respectfully traverse the rejection.

There are no admissions of prior art teachings found in Applicants' specification that support the rejection. For example, claim 1 requires that the milling medium has "a  $H_b/r$  ratio between 1.2 and 1.9 where  $H_b$  is the depth of the milling medium in the ball mill container and  $r$  is the radius of the ball mill container" (emphasis added). Nowhere in Applicants' disclosure is it admitted that the prior art teaches "a  $H_b/r$  ratio between 1.2 and 1.9" as asserted by the Office Action. Instead, page 1 of the specification indicates that "it is known that...the best milling efficiency is obtained...where the amount of filled beads which is expressed in  $H_b/r$  is 1.0" (see paragraph [0002], emphasis added) and further provides that "in the actual production process, the amount of beads is generally kept to one third to half of the total volume of the ball mill container ( $H_b/r$  of 0.66 to 1.0)" (see paragraph [0003], emphasis added).

Claim 1 also requires "rotating the ball mill container at a rotational speed 50% or less of a critical rotational speed of the ball mill container" (emphasis added). Claim 1 defines this critical rotation speed as  $N_c = 299/r^{1/2}$  where  $N_c$  is expressed in rpm and  $r$  is expressed in cm. Nowhere in Applicants' disclosure is it admitted that the prior art teaches such a feature.

Instead, paragraph [0008] of the specification indicates a publication that determined that the "snowslide phenomenon" that happens in a ball mill starts to occur when the critical rotational speed is  $N_c = 299/r^{1/2}$ . Paragraph [0008] further indicates that the point at which the snowslide phenomenon occurs (critical rotational speed ) was considered by this publication as an ideal state for ball milling. In other words, Applicants' specification indicates that this publication taught that the ideal rotational speed was equal to 100% of the critical rotational speed. However, claim 1 requires a rotational speed of 50% or less of the critical rotational speed.

Thus, there are no admissions of prior art teachings found in the Applicants' specification that support the rejection of claims 1 and 7 under 35 U.S.C. §102(b). Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

### **III. Rejections Under 35 U.S.C. §103**

#### **A. AAPA**

The Office Action rejects claims 4 and 5 under 35 U.S.C. §103(a) as being obvious over AAPA. Applicants respectfully traverse the rejection.

Claims 4 and 5 depend from claim 1 and, therefore, contain all of the features of claim 1. The deficiencies of the rejection of claim 1 over the alleged AAPA are discussed above. Therefore, for at least the reasons discussed above, the rejection of claims 4 and 5 over the alleged AAPA is improper. Reconsideration and withdrawal of the rejection are respectfully requested.

#### **B. AAPA in view of Benjamin**

The Office Action rejects claims 2 and 3 under 35 U.S.C. §103(a) as being obvious over AAPA in view of U.S. Patent No. 3,591,362 to Benjamin ("Benjamin"). By this Amendment, newly added claim 12 is now directed to the dry process previously claimed in the alternative in original claim 2. Applicants respectfully traverse the rejection.

Claims 2, 3 and 12 depend from claim 1 and, therefore, contain all of the features of claim 1. The deficiencies of the rejection of claim 1 over the alleged AAPA are discussed above. Benjamin, which is applied by the Office Action for the additional features recited in claims 2, 3 and 12, does not cure the deficiencies. Therefore, for at least the reasons discussed above, the rejection of claims 2 and 3 over the alleged AAPA in view of Benjamin is improper. Additionally, for at least the reasons discussed above, newly added claim 12 would not have been rendered obvious by the alleged AAPA in view of Benjamin. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

**C. AAPA in view of Blanton**

The Office Action rejects claims 6 and 8 under 35 U.S.C. §103(a) as being obvious over AAPA in view of U.S. Patent No. 6,491,239 to Blanton et al. ("Blanton"). Applicants respectfully traverse the rejection.

Claims 6 and 8 depend from claim 1 and, therefore, contain all of the features of claim 1. The deficiencies of the rejection of claim 1 over the alleged AAPA are discussed above. Blanton, which is applied by the Office Action for the additional features recited in claims 6 and 8, does not cure the deficiencies. Therefore, for at least the reasons discussed above, the rejection of claims 6 and 8 over the alleged AAPA in view of Blanton is improper. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

**D. AAPA in view of Hughes**

The Office Action rejects claims 9 and 10 under 35 U.S.C. §103(a) as being obvious over AAPA in view of U.S. Patent No. 3,337,300 to Hughes ("Hughes"). Applicants respectfully traverse the rejection.

Claims 9 and 10 variously depend from claim 1 and, therefore, contain all of the features of claim 1. The deficiencies of the rejection of claim 1 over the alleged AAPA are discussed above. Hughes, which is applied by the Office Action for the additional features


recited in claims 9 and 10, does not cure the deficiencies. Therefore, for at least the reasons discussed above, the rejection of claims 9 and 10 over the alleged AAPA in view of Hughes is improper. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

**IV. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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JAO:MCB

Attachment:  
Petition for Extension of Time

Date: October 10, 2008

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